

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1072 - L2 Version 3

Chandra X-Ray Center

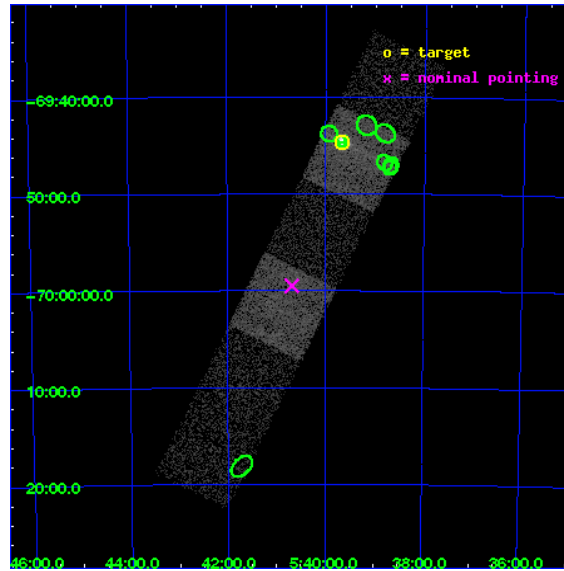
L2 Processing Date : Dec 16 2009

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# 1 Front

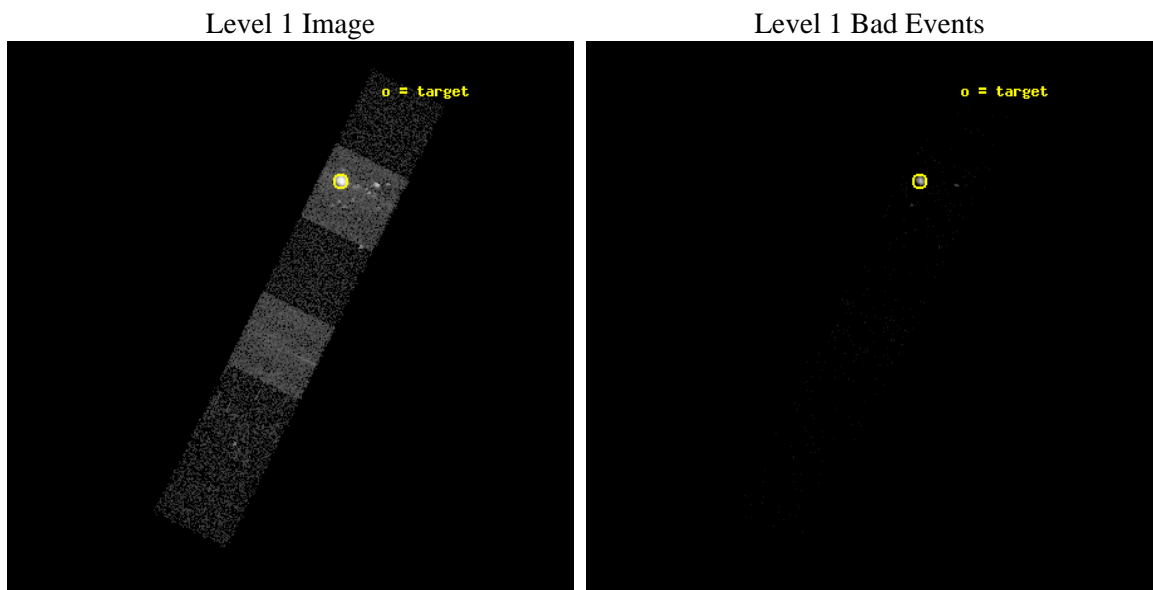
seq_num	480022	Sequence number
obs_id	1072	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	85.170427973616	Nominal RA
dec_nom	-69.991669020576	Nominal Dec
roll_nom	116.56061737868	Nominal Roll
revision	3	Processing version of data
ontime	758.40000070632	Sum of GTIs [s]
livetime	748.79668324372	Livetime [s]
ontime4	758.40000070632	Sum of GTIs [s]
ontime5	758.40000070632	Sum of GTIs [s]
ontime6	758.40000070632	Sum of GTIs [s]
ontime7	758.40000070632	Sum of GTIs [s]
ontime8	758.40000070632	Sum of GTIs [s]
ontime9	758.40000070632	Sum of GTIs [s]
l2events	63698	Number of level 2 events



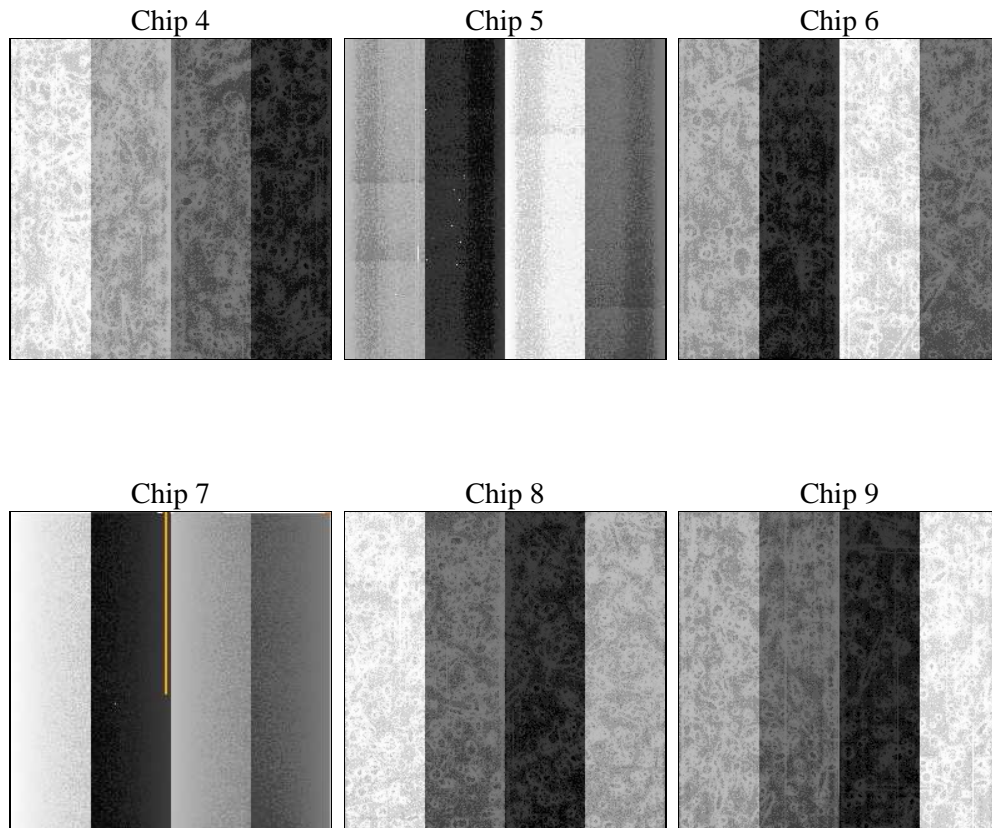
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	758.40000070632	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	758.40000070632	Sum of GTIs [s]
date	2009-12-16T05:59:30	Date and time of file creation	ontime5	758.40000070632	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	758.40000070632	Sum of GTIs [s]
			ontime7	758.40000070632	Sum of GTIs [s]
			ontime8	758.40000070632	Sum of GTIs [s]
			ontime9	758.40000070632	Sum of GTIs [s]
			l1events	74230	Number of level 1 events

### 2.1.4 Events

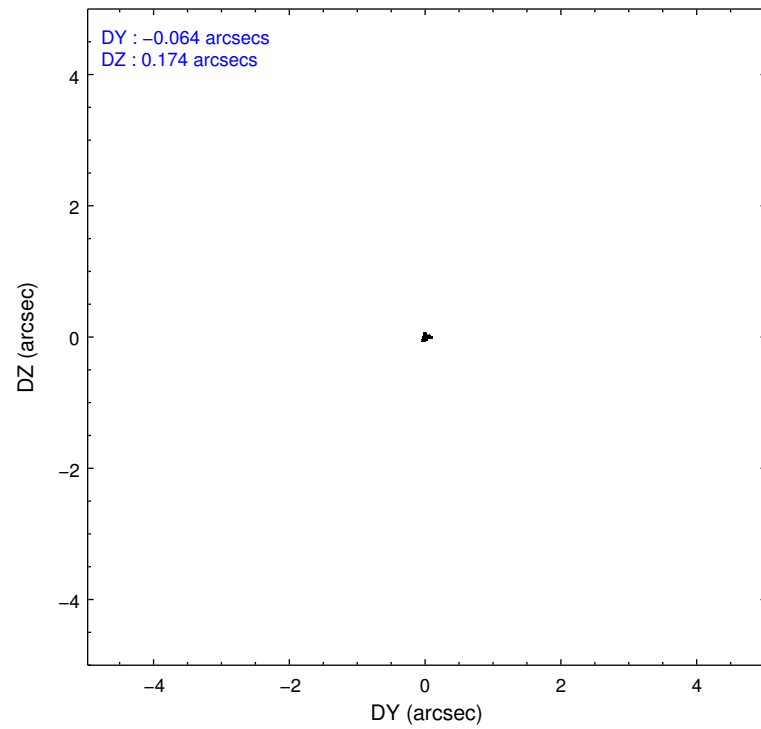
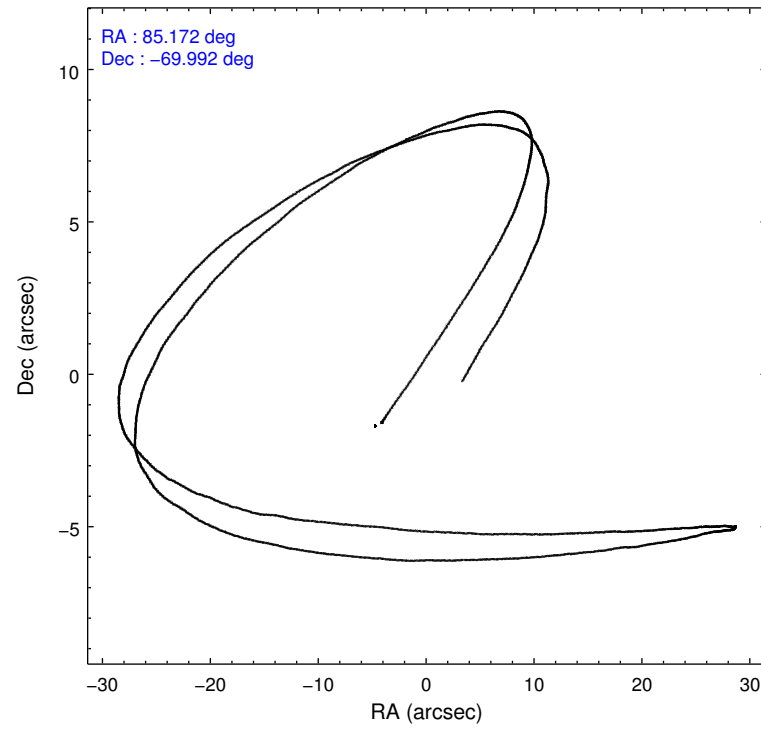
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	2302	52534	2703	11030	3291	2370
rejected events	371	3482	431	1021	471	429
rejected %	16%	6%	15%	9%	14%	18%

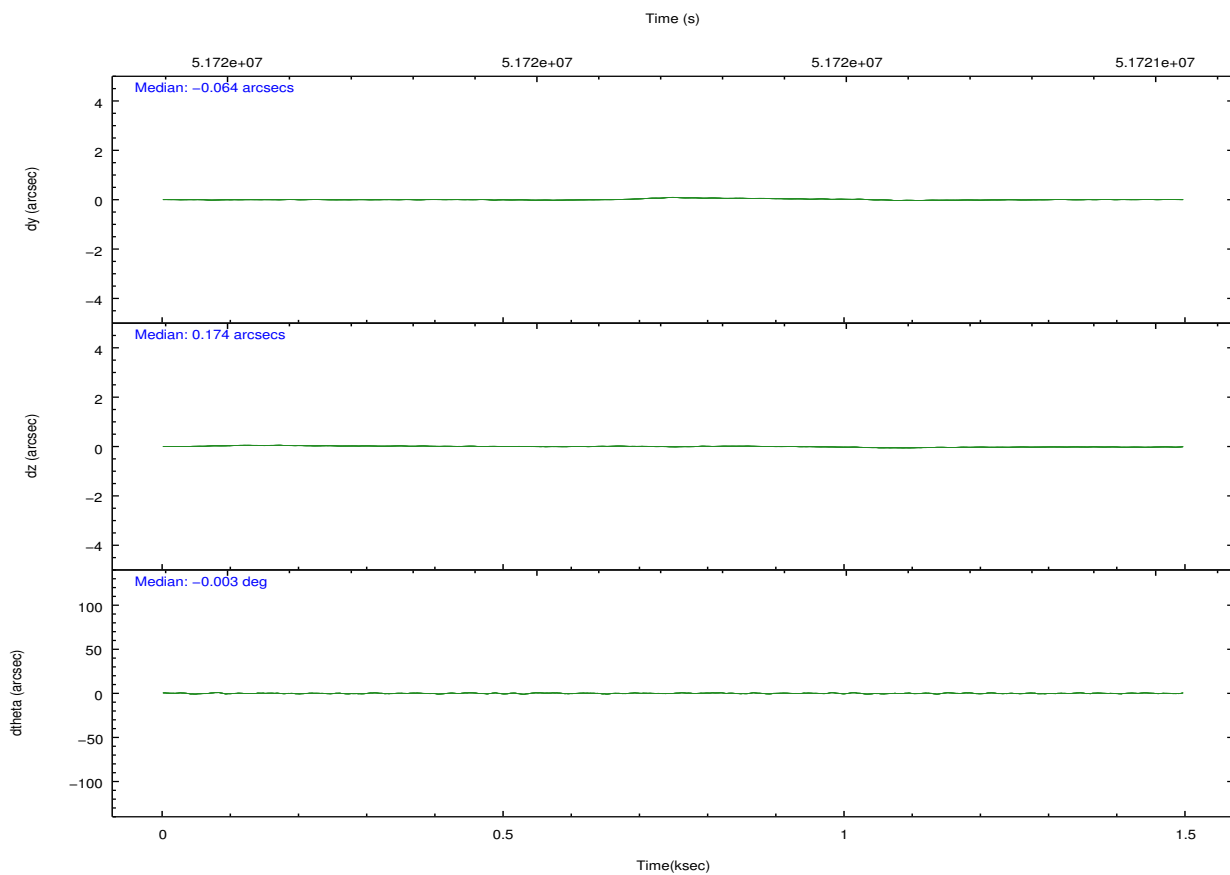
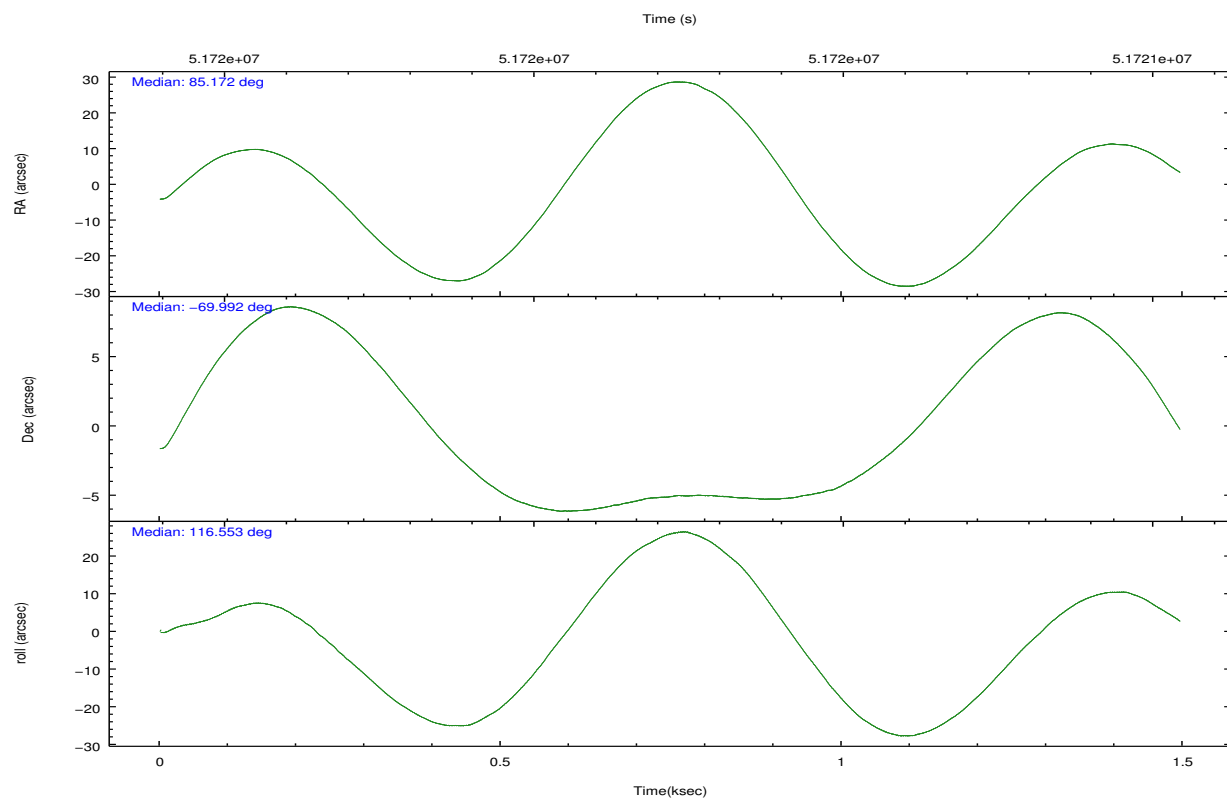
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	840	11769	970	724	1222	840
	36%	22%	35%	6%	37%	35%
grade 1 events	13	596	4	6	14	6
	0%	1%	0%	0%	0%	0%
grade 2 events	483	9098	607	1330	657	445
	20%	17%	22%	12%	19%	18%
grade 3 events	86	8763	111	709	172	109
	3%	16%	4%	6%	5%	4%
grade 4 events	92	3905	95	608	159	88
	3%	7%	3%	5%	4%	3%
grade 5 events	334	2464	406	926	436	406
	14%	4%	15%	8%	13%	17%
grade 6 events	454	15939	510	6727	631	476
	19%	30%	18%	60%	19%	20%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	85.237059	85.1704279736158	Subarray requested	NONE	NONE
Pointing Dec	-70.007789	-69.99166902057647	Alternating exposures requested	N	N
Pointing Roll	116.466594	116.5606173786837	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.865731118321573			
SIM defocus (mm)	0	-0.1814636570216768			
SIM translation stage pos (mm)	-190.132523	-190.1199515274594			
SIM translation stage offset (mm)	0	-0.012571055548392			
Observation start time	51719969.184000	51719295.833134			
Observation start date	1999-08-22T14:38:25	1999-08-22T14:28:15			
Observation end time	51720969.184000	51721095.733199			
Observation end date	1999-08-22T14:55:05	1999-08-22T14:58:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





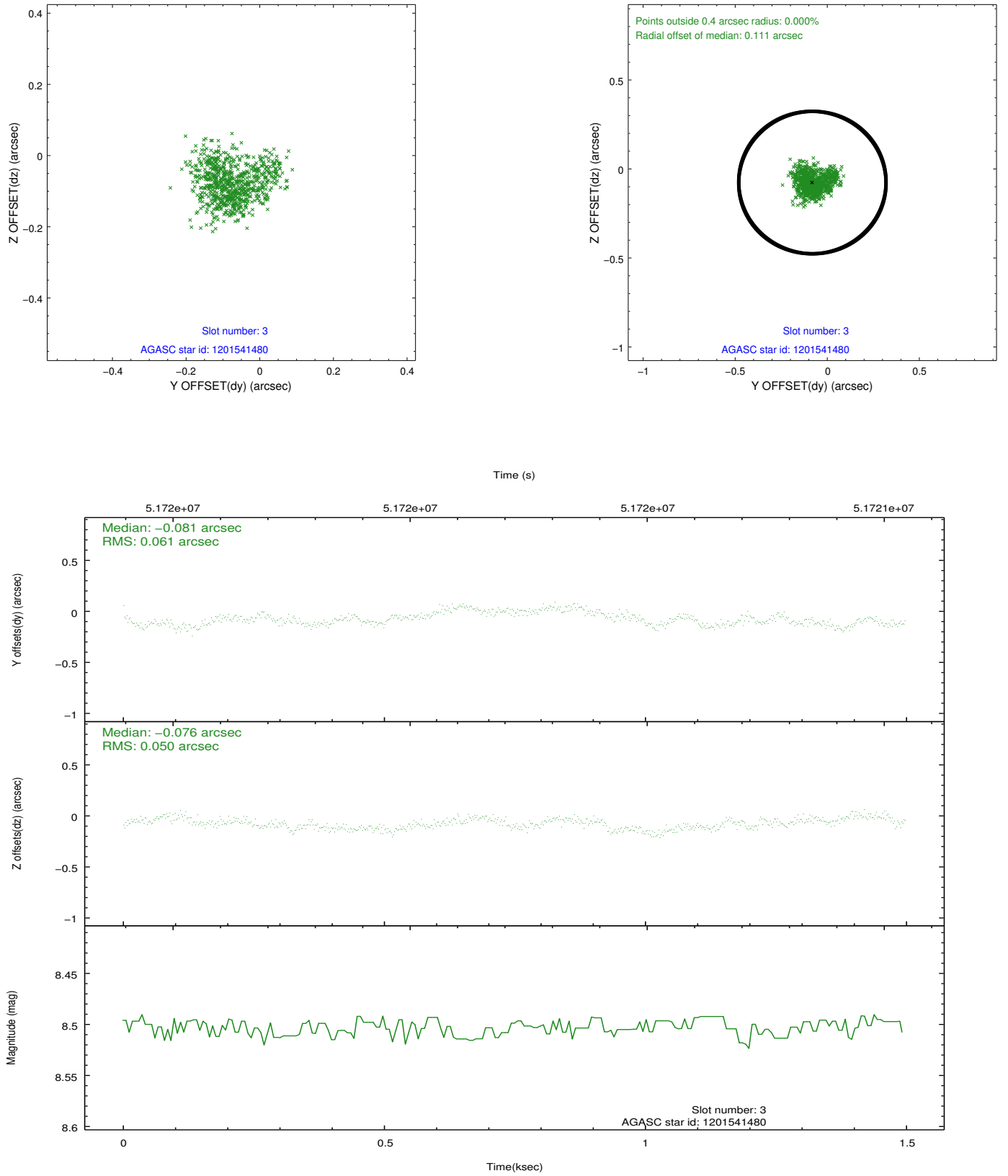
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	731	-0.030	-0.019	0.007	0.011	0.000000	0.000000	-752.55	-1721.54
1	FID	ACIS-S-4	7.22	731	0.135	0.019	0.005	0.012	0.000000	0.000000	2159.92	184.70
2	FID	ACIS-S-5	7.25	731	-0.137	0.008	0.007	0.011	0.000000	0.000000	-1802.69	180.86
3	GUIDE	1201541480	8.50	731	-0.081	-0.076	0.086	0.135	87.080483	-70.345903	-2115.90	-1439.06
4	GUIDE	1201541752	7.36	731	-0.098	0.071	0.059	0.099	85.373891	-70.033762	-163.35	-109.03
5	GUIDE	1201540760	8.55	731	0.049	0.018	0.064	0.105	84.403691	-70.419249	-886.04	1564.73
6	GUIDE	1201542232	9.67	730	0.002	0.018	0.101	0.160	84.533398	-70.465667	-1105.49	1498.76
7	GUIDE	1201540568	9.96	730	0.121	-0.032	0.108	0.174	85.901764	-70.070643	-572.88	-623.70

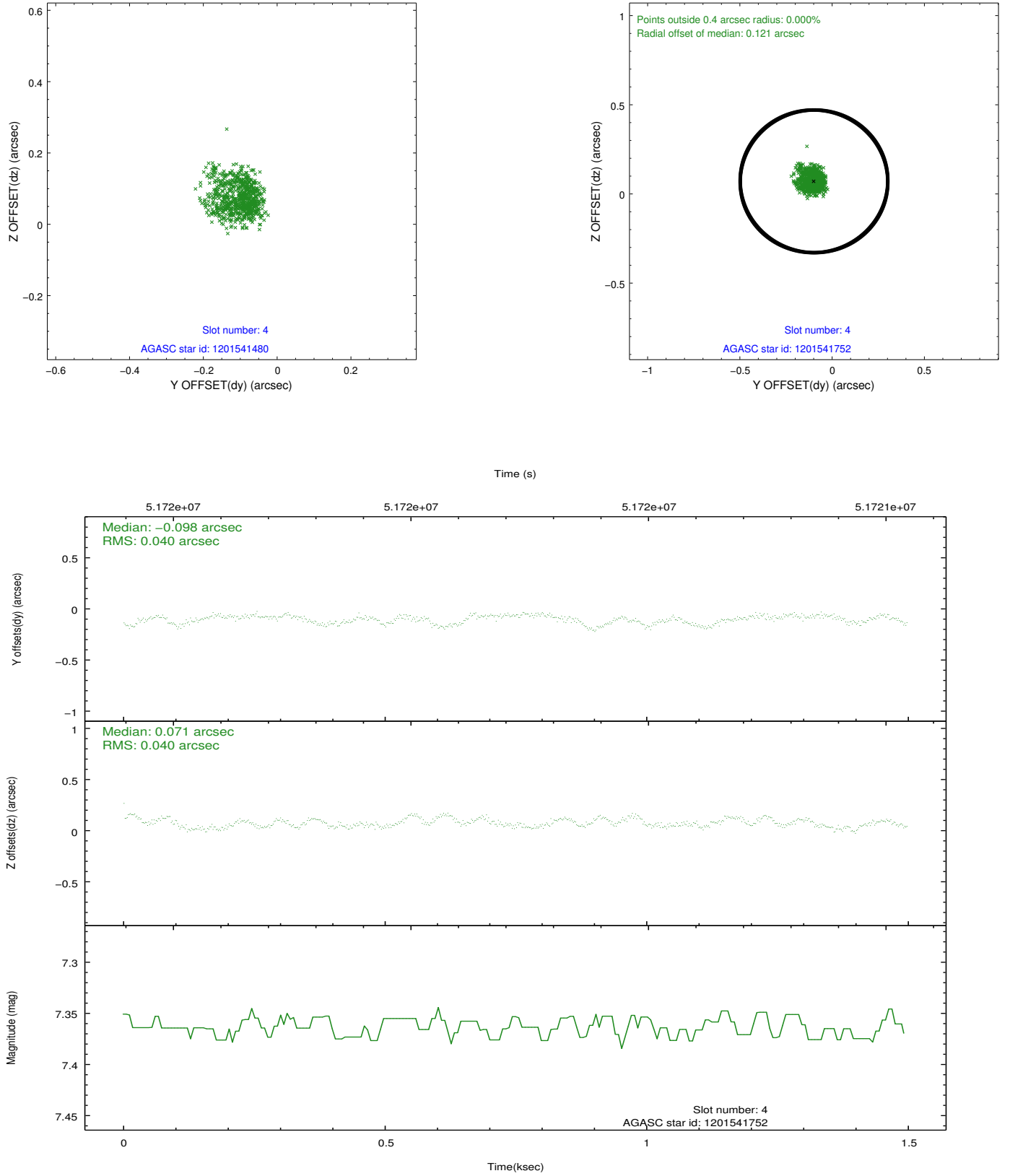


## 2.4 Star Slots

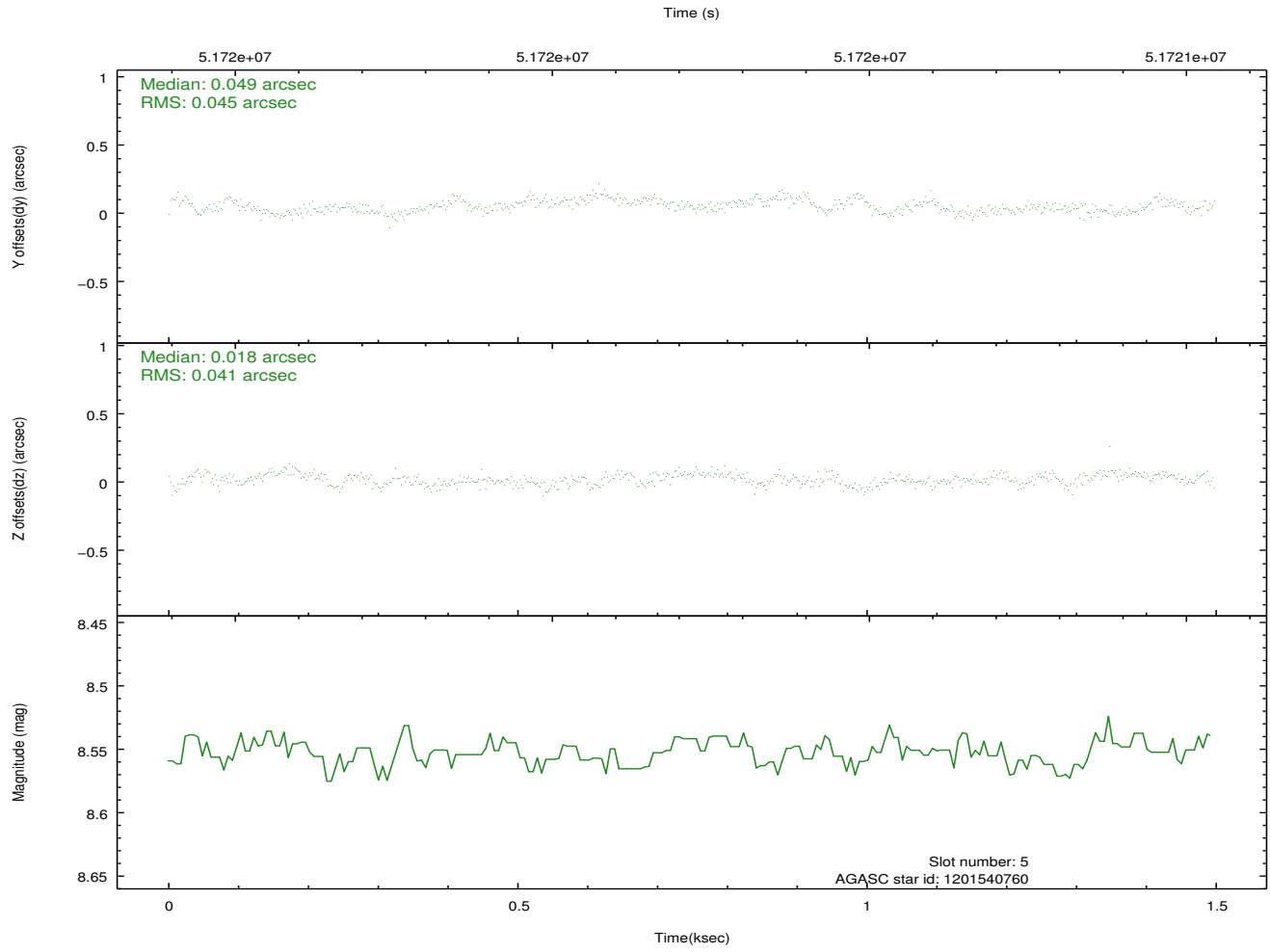
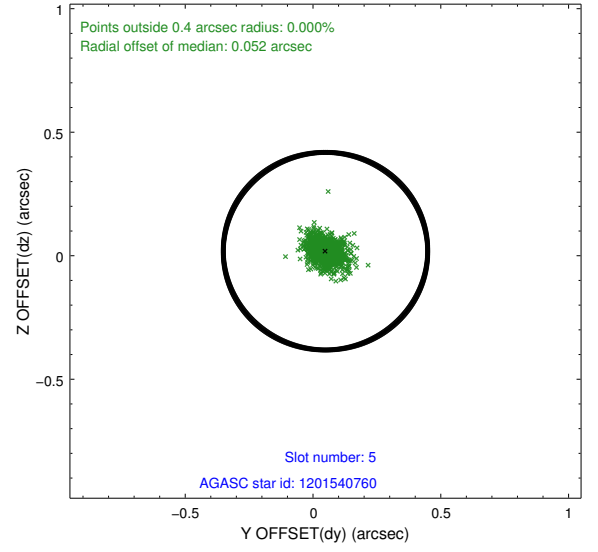
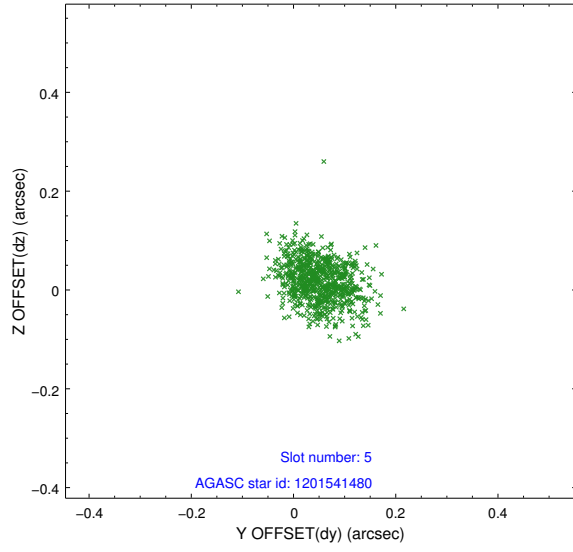
### 2.4.1 Slot 3



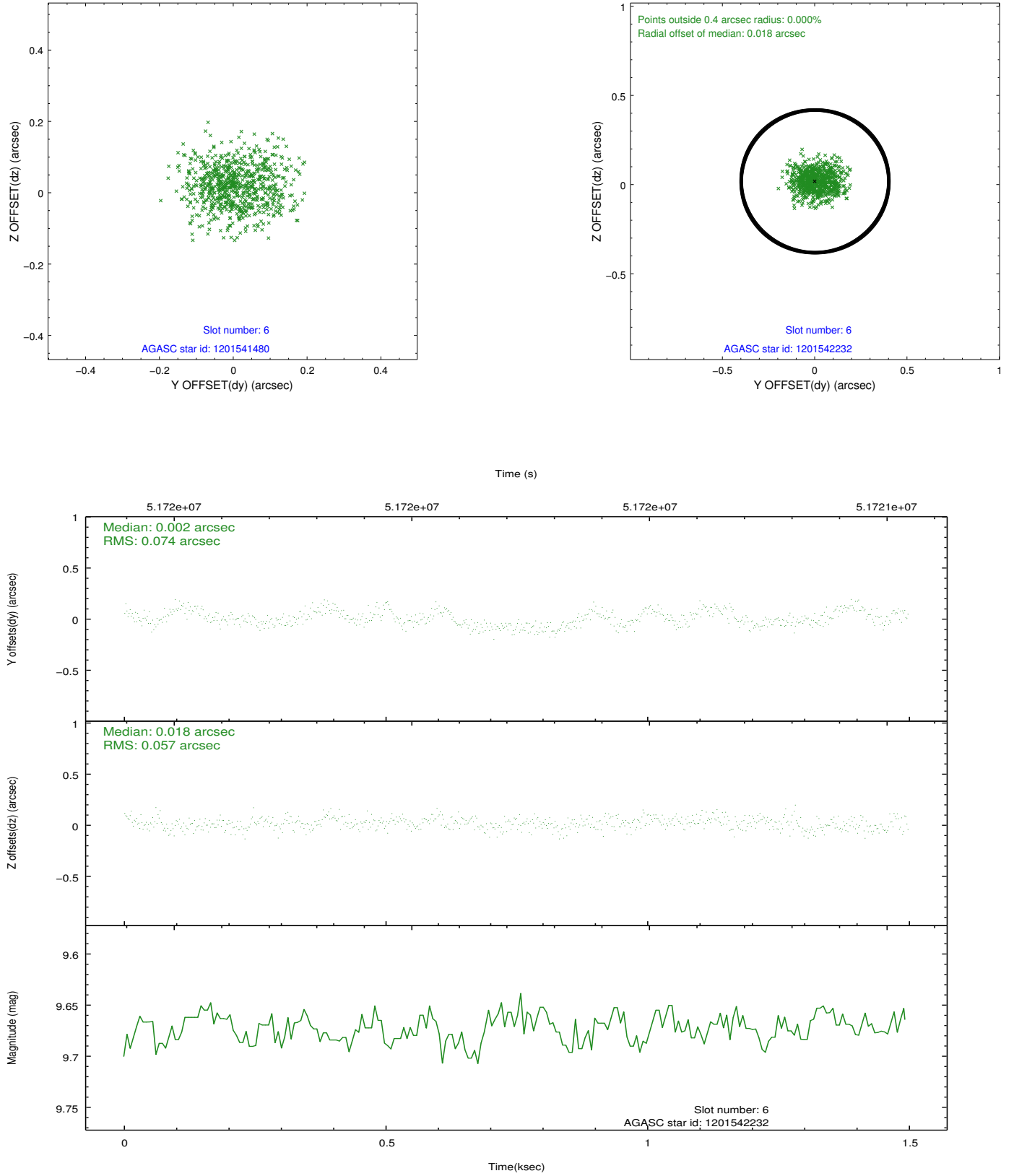
## 2.4.2 Slot 4



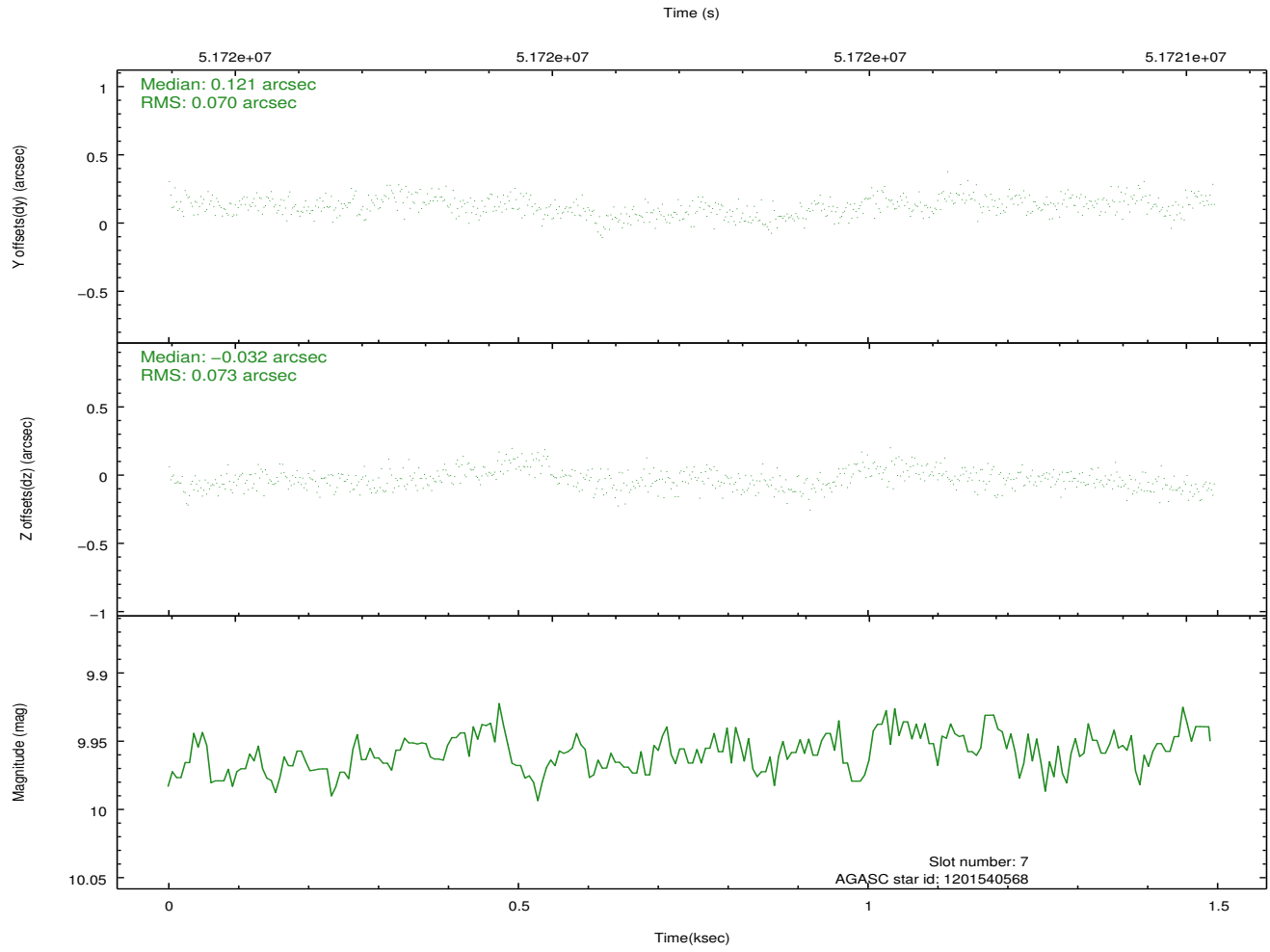
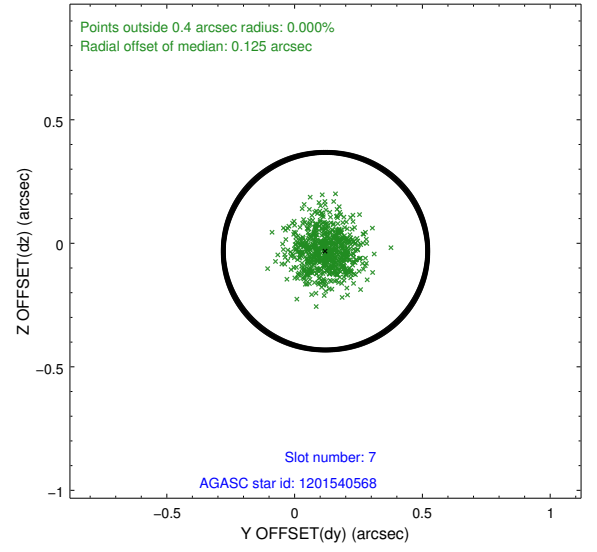
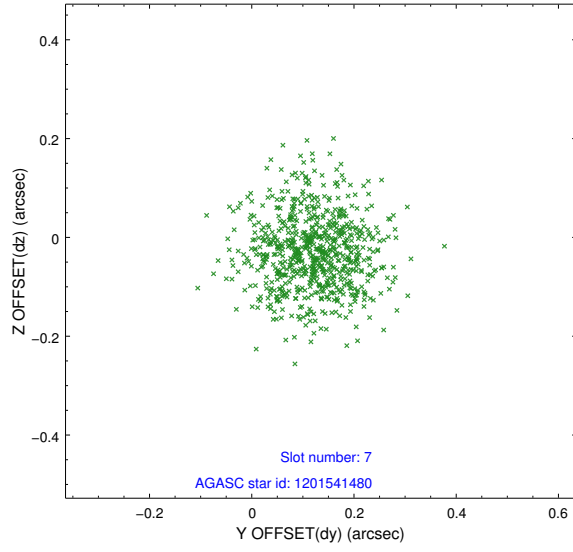
### 2.4.3 Slot 5



## 2.4.4 Slot 6

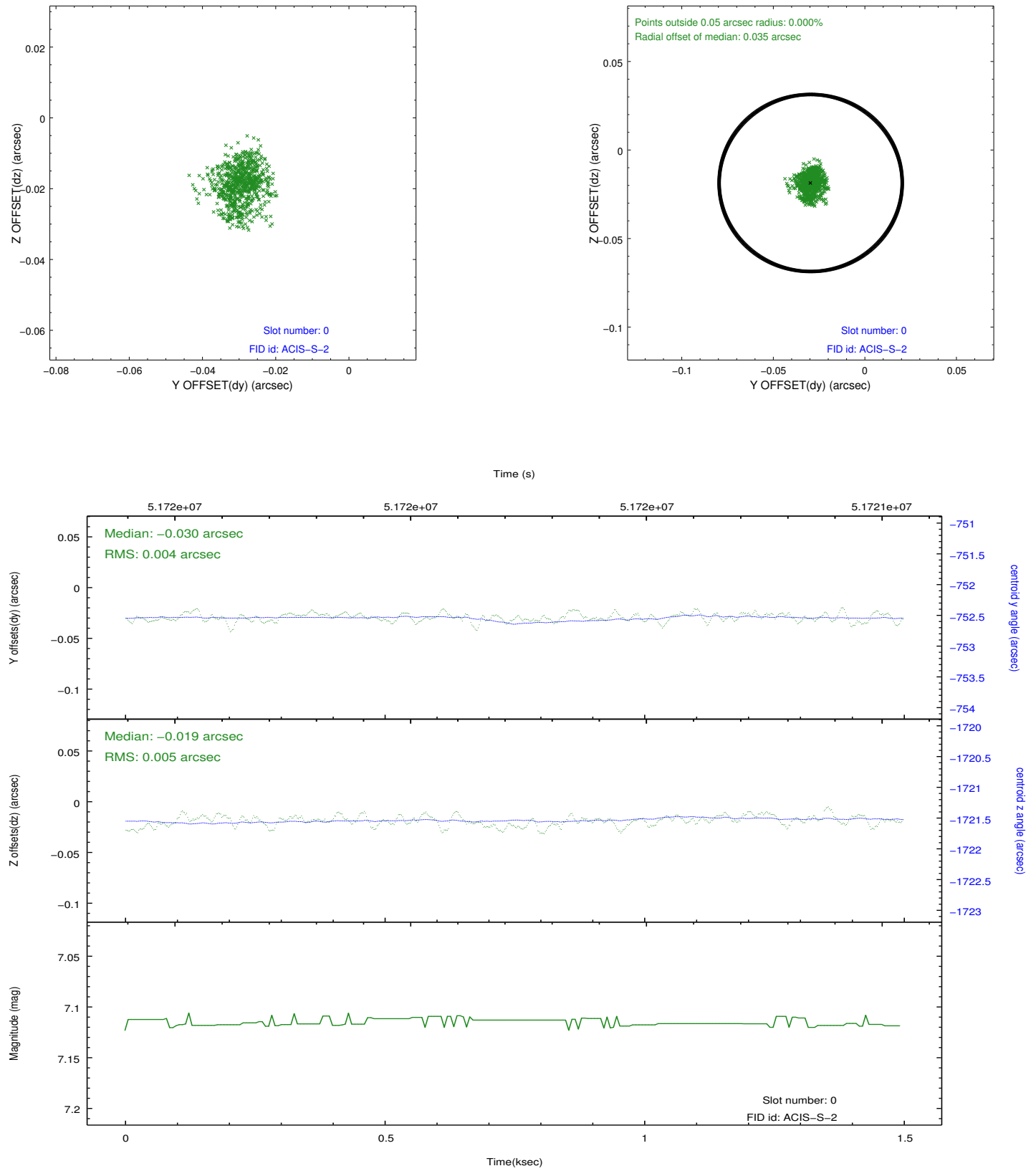


## 2.4.5 Slot 7

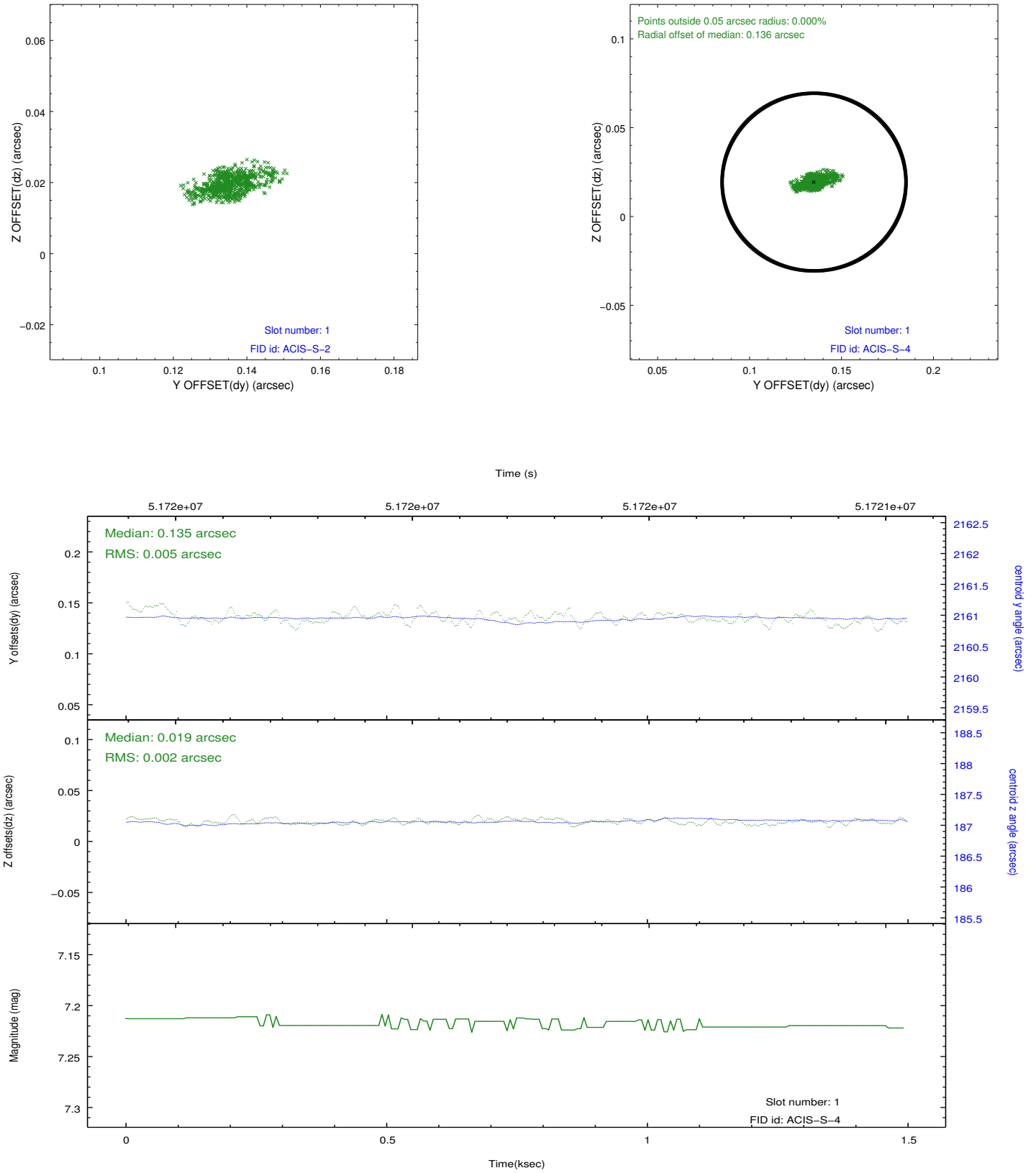


## 2.5 FID Slots

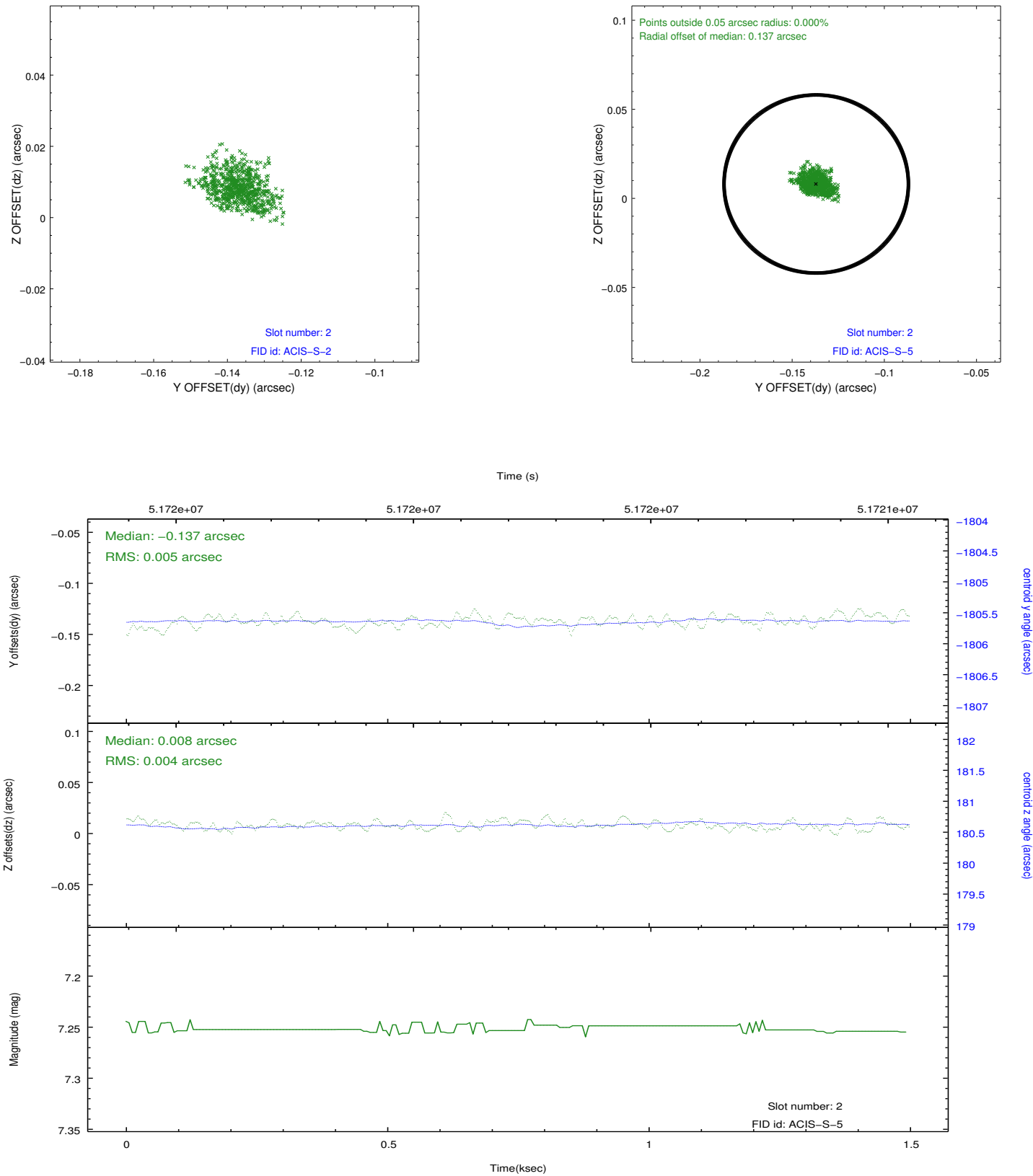
### 2.5.1 Slot 0



## 2.5.2 Slot 1

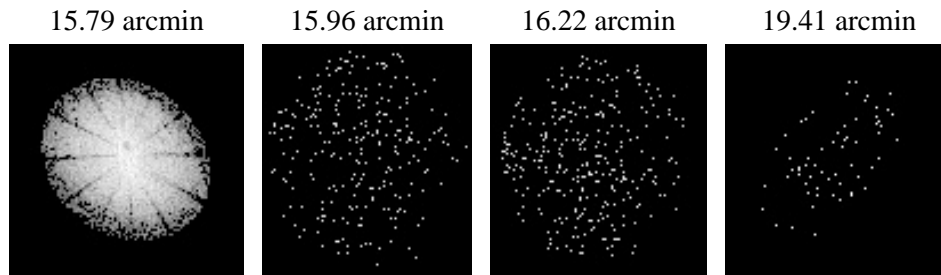


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.05.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	0.755

## A.2 Comments

Target very off-axis, on S1. Bias file for chip S1 suffers from several artifacts. Node 0 has several columns with elevated adu values. Node 1 has quite a number of isolated bright pixels.

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Charge time for this ObsId remains at previous value of 0.755 ksec, although with the current processing the charge time would have been 0.758 ksec.

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The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.